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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO.   |
|--|-------------|----------------------|---------------------|--------------------|
| 10/620,041   | 07/15/2003  | Robert L. Horton     | 11836.740.NP        | 7482               |
| 26722  | 7590        | 01/25/2006           | EXAMINER            |                    |
| OSHA LIANG/MI<br>ONE HOUSTON CENTER<br>SUITE 2800<br>HOUSTON, TX 77010 |             |                      |                     | RICHARD, CHARLES R |
|  |             | ART UNIT             |                     | PAPER NUMBER       |
|  |             |                      |                     | 1712               |

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

15

|                              |                           |                  |  |
|------------------------------|---------------------------|------------------|--|
| <b>Office Action Summary</b> | Application No.           | Applicant(s)     |  |
|                              | 10/620,041                | HORTON ET AL.    |  |
|                              | Examiner<br>C. R. Richard | Art Unit<br>1712 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 14 November 2005.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 10-14 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 33 is/are rejected.
- 7) Claim(s) 10-14,31 and 32 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1)<input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2)<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3)<input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br/>Paper No(s)/Mail Date _____.</li> </ol> | <ol style="list-style-type: none"> <li>4)<input type="checkbox"/> Interview Summary (PTO-413)<br/>Paper No(s)/Mail Date. _____.</li> <li>5)<input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6)<input type="checkbox"/> Other: _____.</li> </ol> |
|---|--|

## **DETAILED ACTION**

1. Applicant claims benefit of US Provisional Application No. 60/319575 filed September 25, 2002 and has incorporated this document by reference into the present application. The Examiner concludes from his review of the priority application that claims 31-32 as amended of the present application are not supported in the priority application and will evaluate prior art in relation to these claims according to this finding; no corresponding statement is made as to the other claims at this time.

### ***Oath/Declaration***

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective, because it was not executed in accordance with either 37 CFR 1.66 or 1.68. The blank for the date next to the signature of one of the inventors, Kamila B. Abdur-Rahman, was not filled in.

### ***Specification***

3. The amendment filed 14 November 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as

follows: the addition of the definition of S1 into pages 9 and 23 of the specification as well as the strike throughs of CH groups on page 23 – the latter is effectively the addition of the resulting structure. These issues are discussed in detail in the Examiner's response to arguments below.

Applicant is required to cancel the new matter in the reply to this Office Action.

4. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. An example of an unclear, inexact or verbose terms used in the specification are at page 9, lines 7-28. There are many similar instances as well.

The specific instance cited (at page 9) is the fourth in a series in the specification that show R7 and its glycol functional group and R9 with its amine group (where there is a positive charge on the nitrogen regardless of the choice of H or methyl for R11 and R12) and S1 (which is carboxyl,  $\text{SO}_3^=$  or undefined), yet there is mention here of (only) nonionic surfactant character and either (only) zwitterionic, cationic or anionic character in the others in the series. It may even be argued that the members of this series actually describe one and the same material. Note there are similar issues in the series of disclosures for the corresponding polymers where there are carbon-carbon double bonds in the backbone.

The strike throughs of the CH groups on page 23 requested in the amendment of 14 November 2005 don't seem to make sense and are objected to here – they appear to be typographical errors.

Applicant is reminded that correction of such errors may invoke a later rejection for addition of new matter depending on how such correction is attempted. In some instances, the most appropriate correction may be to strike the "offending" material.

### ***Claim Objections***

5. Claim 10 and claims 11-14 and 31-32 by dependency are objected to because of the following informalities: claim 10 recites "molecular confirmation" when "molecular conformation" is called for instead. Also, claim 10 allows for the surfactant functional group to be other than a zwitterion as shown in the structure of the thickener. Appropriate correction is required.

6. Claims 12 and 13 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, claim 12 is broader than claim 11 from which it depends and claim 13 has the same scope as claim 11 from which it depends.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 33 is rejected under 35 U.S.C. 112, second paragraph, since it recites the limitation "wherein the thickener has ...". There is insufficient antecedent basis for this limitation in the claim. Perhaps Applicant meant "wherein the oligomer or polymer has ...".

***Response to Arguments***

9. Applicant's arguments, filed 14 November 2005, with respect to the rejections on the merits (over prior art) of the claims as now amended have been fully considered and are persuasive. Therefore, these rejections are withdrawn. However, upon further consideration, new grounds of rejection are made as a result of Applicant's amendments (see below); none of these are on the merits (over prior art).

In the 14 November 2005 filing, Applicant has cancelled claims 1-9, 15-30 and 34-36 and amended claims 10, 14, 31 and 33. Claims 10-14 and 31-33 are now pending.

There do not appear to be any support issues in the claims as amended, and the amendments are hereby entered. However, there are some issues under 35 USC 112 introduced by the amendments to the claims; rejections were made accordingly above. The claim objections and the claim rejections under 35 USC 112 from the previous Office Action have been rendered moot by the amendments to the claims, but new objections and rejections have been made above on other points.

Also in the response of 14 November 2005, Applicant has requested certain amendments to the specification. Many of these changes involve addition of new matter and are objected to above. The objections to the specification from the previous Office Action are maintained in part, since the changes requested are not sufficient to overcome them.

The Examiner is willing to go along with Applicant's changes requested regarding the parameter "w" in the paragraph starting at page 9, line 7 as "w" is not shown in the formula, and it looks as if that is what was indeed intended. However, the addition of the definition for "S1" is another matter. There is no direct support for this addition and based on the overall context of the specification, "S1" would have to be such that R9 was an non-ionic surfactant head group. Applicant's mention of support in line 4 of page 9 appears to be taken out of context.

Corresponding findings are made as to the changes requested on page 23. Additionally as to page 23, the Examiner is not sure what Applicant's intention is concerning the mark-throughs of the "CH" groups in the structure of the polymer backbone, and this appears to make no sense and seems to be a typographical error.

The Examiner finds that support for the change on page 12 is found within the context of the specification.

The objection to the oath is maintained, since Applicant's petition regarding this matter has been dismissed by the Office of Petitions in a decision mailed 11 January 2006.

The Examiner maintains his position regarding the priority claim as to claims 31 and 32; the issue as to claims 15-30 is moot via their cancellation. There is (generic) support in the paragraphs indicated by Applicant for crosslinking by polyvalent metal ions. There is none for formaldehyde or glutaraldehyde. As to specific ions claimed, none are directly supported, and several of the specific ionic species claimed are far from common; for example, the Examiner doubts that those of ordinary skill in the art have ever heard of uranium oxide cross-linkers, much less in this context.

All of the rejections under 35 USC 102 and 103 from the previous Office Action have been rendered moot/been overcome by Applicant's claim cancellations and amendments.

#### ***Allowable Subject Matter***

10. The subject matter of claims 10-14 and 31-32 is allowable over the prior art, but there are outstanding objections to these claims. As allowable subject matter has been indicated, Applicant's reply must either comply with all formal requirements or

specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

11. Claim 33 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

12. Currently, no claims stand rejected over the prior art.

***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. R. Richard whose telephone number is 571-272-8502. The examiner can normally be reached on M-Th, 8am-6pm and alternate Fridays, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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